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## AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

### LISTING OF CLAIMS

1. (currently amended) A method for depositing a polymer on a porous sheet material in a predetermined pattern comprising:

wetting the porous sheet material with a polymer composition comprising a solvent and a hydrophobic polymer;

while it is still wet, contacting the wet porous sheet material with a pattern member containing openings corresponding to the predetermined pattern; and

evaporating the solvent from the wet porous sheet material while in contact with the pattern member

wherein the evaporating causes movement of the polymer across the porous substrate to areas of the substrate corresponding to the openings of the pattern member.

2. (original) A method according to claim 1, wherein the porous sheet material comprises carbon fiber paper.

3. (original) A method according to claim 2, wherein the carbon fiber paper has porosity greater than 50%.

4. (original) A method according to claim 1, wherein the hydrophobic polymer comprises a fluorocarbon polymer.

5. (original) A method according to claim 4, wherein the fluorocarbon polymer comprises polytetrafluoroethylene.

6. (original) A method according to claim 1, comprising contacting the porous sheet material on one side only with the pattern member.

7. (original) A method according to claim 1, comprising contacting the porous sheet material on both sides with a pattern member.

8. (original) A method according to claim 1, wherein the pattern comprises 50-99% coverage by the hydrophobic polymer on the porous sheet material.

9. (original) A method for depositing fluorocarbon polymer onto a sheet of carbon fiber paper in a predetermined pattern representing less than 100% coverage of the sheet by the fluorocarbon polymer, the method comprising:

wetting a sheet of carbon fiber paper with solvent in an aqueous emulsion of fluorocarbon polymer;

contacting the wet sheet with a pattern member comprising one or more openings orientated to correspond to the predetermined pattern; and

evaporating the solvent from the sheet while in contact with the pattern member so that the fluorocarbon polymer is concentrated on the sheet at the openings.

10. (original) A method according to claim 9, wherein the fluorocarbon polymer comprises polytetrafluoroethylene.

11. (original) A method according to claim 9, wherein the contacting step comprises holding the sheet between two mold surfaces, wherein at least one mold surface comprises openings through which the solvent can evaporate.

12. (original) A method according to claim 11, wherein one mold surface comprises openings, and the other mold surface is solid.

13. (original) A method according to claim 11, wherein both mold surfaces comprise openings, and wherein a pattern of fluorocarbon polymer is deposited on both sides of the sheet.

14. (original) A method according to claim 9, wherein the pattern member comprises a screen.

15. (original) A method according to claim 9, wherein evaporating is accomplished by heating the sheet to remove solvent.

16. (original) A method according to claim 9, wherein at least one side of the sheet is coated over 10-90% of its area with fluorocarbon polymer.

17. (original) A method according to claim 16, wherein at least one side of the sheet is coated over 10-60% of its area with fluorocarbon polymer.

18. (original) A method according to claim 16, wherein at least one side of the sheet is coated over 10-50% of its area with fluorocarbon polymer.

19. (original) A fuel cell comprising diffusion media made by a process according to claim 9.

20. (currently amended) A method for making diffusion media with polymer deposited on a portion of the diffusion media, comprising:

wetting a sheet of diffusion media with a solution comprising a solvent and polymer;

contacting the sheet with a pattern member having a predetermined pattern; and

evaporating solvent from the sheet while the sheet is in contact with the pattern member.

wherein the evaporating causes movement of the polymer across the porous substrate to areas of the substrate corresponding to the openings of the pattern member.

21. (original) A method according to claim 20, wherein the diffusion media is carbon fiber paper; the polymer comprises fluorocarbon and the solvent comprises water.

22. (original) A method according to claim 20, wherein the pattern member comprises a screen.

23. (original) A method according to claim 22, wherein the screen comprises openings that make up 10-90% of the area of the screen.

24. (original) A method according to claim 23, wherein the openings make up 10-60% of the area of the screen.

25. (original) A method according to claim 23, wherein the openings make up 10-40% of the area of the screen.

26. (original) A method according to claim 20, wherein the solution is an aqueous emulsion comprising 1-10 wt. % polymer in the form of particles.

27. (original) A method according to claim 26, wherein the aqueous emulsion comprises 1-5 wt. % polymer in the form of particles.

28. (original) A method according to claim 21 wherein the fluorocarbon comprises polytetrafluoroethylene and the method comprises delivering 1-20 wt. % polytetrafluoroethylene onto the carbon fiber paper, based on the total weight of the coated sheet.

29. (original) A method according to claim 28, wherein 2-15% by wt. polytetrafluoroethylene is delivered onto the carbon sheet.

30. (original) A method according to claim 28, wherein 4-10 wt. % polytetrafluoroethylene is delivered onto the carbon sheet.

31. (previously presented) A method of fabricating a fuel cell comprising making diffusion media by a process according to claim 20 and incorporating the diffusion media into a fuel cell.

32. (previously presented) A method of fabricating a fuel cell comprising making diffusion media by a process according to claim 1 and incorporating the diffusion media into a fuel cell.

33. (currently amended) A method of fabricating a fuel cell according to claim ~~33~~ 32, wherein the fuel cell has a bipolar plate comprising a plurality of lands and grooves with the openings of said pattern member corresponding to said grooves.

34. (previously presented) A method according to claim 33, wherein the fuel cell has a bipolar plate comprising a plurality of lands and grooves with the pattern member defining in said grooves a hydrophobic polymer content different from the hydrophobic polymer content of said lands.

35. (previously presented ) The method of claim 32 wherein the fuel cell has a gas inlet area and gas outlet area wherein there is greater hydrophobic polymer loading on the diffusion media adjacent or in said gas outlet area than in said gas inlet area.

36. (currently amended) A method for applying polymer on a porous sheet comprising:

wetting the sheet with a solution comprising a solvent and polymer;

contacting the wet porous sheet with a pattern member; and

evaporating water from the sheet while the sheet is in contact with the pattern member to vary polymer loading on the sheet corresponding to the pattern member, wherein the evaporating causes movement of the polymer across the porous substrate to areas of the substrate corresponding to the openings of the pattern member.